

## **AMENDMENT(S) TO THE SPECIFICATION**

**Please insert the following paragraph beginning at page 1, line 2:**

### **CROSS REFERENCE TO RELATED APPLICATION**

The present application is a 35 U.S.C. §§ 371 national phase conversion of PCT/FR2003/002694 filed 11 September 2003, which claims priority of French Application No. 02/11556 filed 18 September 2002. The PCT International Application was published in the French language.

**Please insert the following section heading at page 1, line 2:**

### **BACKGROUND OF THE INVENTION**

**Please replace the paragraph beginning at page 3, line 3, with the following rewritten paragraph:**

Several types of end-fittings for flexible pipes using the principle of crimping the internal sheath are known, especially from documents FR 2 214 852 or WO 99/19655, or else from document WO 97/25564 in the name of the Applicant Assignee hereof, and document PCT/FR01/03305 also in the name of the Applicant Assignee. The latter document describes in particular a fastening end-fitting for a flexible tubular pipe, comprising a first annular portion (generally called the vault of the end-fitting) to which may bear a first crimping flange provided with a cone for crimping the internal sheath and a second annular portion (generally called a cap) which surrounds, and extends rearwards, the first annular portion and on which a second crimping flange can bear[[],]. The said second crimping flange being is provided with a cone for crimping the external sheath, cooperating with a rear crimping support sleeve[[],]. The the second annular portion defining defines with the first annular portion an annular space in which the tensile armor plies are placed in such a way that they are radially separate from the internal sheath so as to pass around the first crimping flange and the first annular portion in order to be fastened thereto. The end-fitting includes a collar for immobilizing the armor wires between the first crimping flange and the second

crimping flange. The aforementioned annular space is intended to be filled with a filling material such as a resin which will immobilize the various elements lying in this space.

**Please replace the paragraph beginning at page 4, line 6, with the following rewritten paragraph:**

Thus, methods are known for inspecting the inside of a pipe, using an inspection "pig" traveling along the pipe and giving, for example, video images or identifying a possible retraction of the carcass at an end-fitting by an eddy current system and associated sensors (~~cf. document see~~ FR 2 790 087 in the name of the Applicant Assignee). Such methods, ~~besides~~ Besides the fact that ~~they~~ such methods give information about the carcass but not directly about the sheath (in the case of rough bore pipes), ~~they~~ have the a drawback of requiring production to be temporarily stopped in order to send the pig into the pipe.

**Please replace the paragraph beginning at page 4, line 16, with the following rewritten paragraph:**

Methods are also known for detecting leaks in pipes (FR 2 626 974 and US 4 775 855) or ~~methods~~ for detecting the imminent fracture of a pipe using sensor elements placed on the pipe (GB 2 057 696).

**Please replace the paragraph beginning at page 5, line 12, with the following rewritten paragraph:**

The Applicant Assignee has also proposed, in French application No. 02/02155, a detection method and an associated end-fitting that can provide information about the displacement of the pressure sheath or of other layers of the pipe without having to stop production. The end-fitting is suitable for detection, because it is equipped directly with a sensor for detecting the displacement of a given layer in the pipe, especially the pressure sheath.

**Please replace the paragraph beginning at page 7, line 4, with the following rewritten paragraph:**

## **SUMMARY OF THE INVENTION**

The invention achieves its objective thanks to a method of monitoring the integrity of a flexible pipe for transporting a pressurized fluid in a terminal end-fitting[[],]. The said pipe comprising comprises, in particular, an internal pressure sheath, plies of tensile armor wires and an outer sheath fastened to the end-fitting[[],]. The which method consists in comprises monitoring the integrity of the tensile armor plies in the end-fitting by monitoring the change in the twist in the flexible pipe as a phenomenon associated with the disorganization of the armor plies as a result of fracture of several tensile armor wires inside the end-fitting. To the knowledge of the Applicant, it has never hitherto previously been proposed to monitor the integrity of the armor plies in the pipe end-fitting, nor have the phenomena heralding warning of the failure of said the tensile armor plies, especially the twist in the pipe, ever been examined.

**Please replace the paragraph beginning at page 9, line 14, with the following rewritten paragraph:**

The invention also relates to the device associated with the method of the invention. This device for monitoring the integrity of a flexible pipe for transporting a pressurized fluid at a terminal end-fitting, said pipe comprising comprises in particular an internal pressure sheath, plies of tensile armor wires and an outer sheath that are fastened to the end-fitting[[],]. It is noteworthy in that it the device comprises means for monitoring the change in a phenomenon due to the disorganization of the armor plies as a result of fracture of several tensile armor wires inside the end-fitting. These monitoring means are means for detecting an increase in the twist in the pipe near the end-fitting.

**Please insert the following section heading at page 10, line 7:**

## **BRIEF DESCRIPTION OF THE DRAWING**

**Please insert the following section heading at page 10, line 12:**

**DESCRIPTION OF A PREFERRED EMBODIMENT**